

What is claimed is:

1. A data processing system applying in a wireless local areas network (WLAN), the WLAN comprising a plurality of data receiving/transmitting apparatus, the system at least being set up in a first data receiving/transmitting apparatus to let
5 the first data receiving/transmitting apparatus proceed the received or transmitting data, the system comprising:
 - a transmitting device for processing the transmitting data transmitted to a second data receiving/transmitting apparatus, the transmitting device comprising:
10 a look up table, when the data processing system transmitting data to the plurality of data receiving/transmitting apparatus, for recording the data compressing method and the identification number corresponding to each of the plurality of data receiving/transmitting apparatus;
 - 15 a control module for determining a corresponding data compressing policy according to the record of the second data receiving/transmitting apparatus in the look up table before the transmitting data being transmitted to the second data receiving/transmitting apparatus; and
 - 20 a data compressing module for compressing the transmitting data according to a data compressing method which is assigned by the control module; and
 - a receiving device for processing a receiving data, the receiving device comprising:
25 an identity module for identifying the data compressing method of the received data; and

a data decompressing module for decompressing the received data according to the data compressing method which is identified by the identity module.

2. The data processing system of claim 1, wherein the data compressing policy comprises:

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if the data compressing method used by the second data receiving/transmitting apparatus has been recorded into the look up table, the control module notifying the data compressing module to compress the data according to the data compressing method recorded in the look up table; and

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if the data compressing method used by the second data receiving/transmitting apparatus hasn't been recorded into the look up table, the control module determining a process to negotiate with the second data receiving/transmitting apparatus by a predetermined inquiring procedure.

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3. The data processing system of claim 2, wherein the inquiring procedure comprises;

transmitting an inquiring signal to the second data receiving/transmitting apparatus;

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waiting for a response signal responded by the second data receiving/transmitting apparatus; and

proceeding a predetermined responding processing procedure in a predetermined waiting period, for following up with transmitting the data.

4. The data processing system of claim 3, wherein the response signal comprises following responding information:

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whether the transmitting data should be compressed; and

the data compressing method being used when the transmitting data should be compressed.

- 5 5. The data processing system of claim 4, wherein the responding processing procedure comprises:

if receiving the response signal in the predetermined waiting period, then processing the transmitting data according to the responding information of the response signal; and

- 10 if not receiving the response signal in the predetermined waiting period, then directly transmitting the transmitting data without compressing.

6. The data processing system of claim 5, wherein, when the responding information of the response signal shows unnecessary to proceed the data compression, the control module notifies the data compressing module not to proceed the compressing procedure, and transmits the transmitting data directly.

- 15 7. The data processing system of claim 5, wherein, when the responding information of the response signal shows necessary to proceed the data compression, the look up table creates a data record to record the device identification number of the second data receiving/transmitting apparatus, the information of data compression, and the information of the corresponding data compressing method into the look up table.
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8. The data processing system of claim 5, wherein, when the responding information of the response signal shows unnecessary to proceed the data compression, the look up table creates a data record to record the device identification number of the second data receiving/transmitting apparatus, the information of unnecessarily proceeding data compression into the look up table.
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9. The data processing system of claim 5, wherein, if not receiving the responding data in the predetermined waiting period, the look up table creates a data record to record the device identification number of the second data receiving/transmitting apparatus, the information of unnecessarily proceeding data compression into the look up table.
10. The data processing system of claim 1, the data compressing method is to compress the transmitting data during performing the data packet packaging procedure.
11. The data processing system of claim 10, wherein the data compressing method is to proceed the loss-less compression with the transmitting data by the data compressing method of ZIP or LZH.
12. A data processing method of wireless local areas network (WLAN), the WLAN comprises pluralities of data receiving/transmitting apparatus, the processing method processes a transmitting data at least in one data receiving/transmitting apparatus, for following up with transmitting the transmitting data to a target data receiving/transmitting apparatus of the WLAN, the data receiving/transmitting apparatus comprising a look up table, the look up table comprising a plurality of data records for recording the data compressing method and the identification number corresponding to each of the plurality of data receiving/transmitting apparatus when the data processing system transmitting data to the plurality of data receiving/transmitting apparatus, the data processing method comprises;
- determining a corresponding data compressing policy according to the record of the target data receiving/transmitting apparatus in the look up table before the transmitting data being transmitted to the target data receiving/transmitting apparatus; and
- compressing the transmitting data according to a data compressing method

recorded in the data compressing policy.

13. The data processing method of claim 12, wherein the transmitting data comprises a header and a main data.

14. The data processing method of claim 12, wherein the data compressing policy
5 comprises:

if the data compressing method used by the target data receiving/transmitting apparatus has been recorded into the look up table, compressing the transmitting data according to the data compressing method recorded in the look up table; and

10 if the data compressing method used by the target data receiving/transmitting apparatus hasn't been recorded into the look up table, determining a process to process the transmitting data according to a predetermined inquiring procedure.

15. The data processing method of claim 14, wherein the inquiring procedure
15 comprises;

transmitting an inquiring signal to the target data receiving/transmitting apparatus;

waiting for a response signal responded by the target data receiving/transmitting apparatus; and

20 proceeding a predetermined responding processing procedure in a predetermined waiting period, for following up with transmitting the data.

16. The data processing method of claim 15, wherein the response signal comprises the following response signal information:

whether the transmitting data should be compressed; and

the data compressing method being used when the transmitting data should be compressed.

17. The data processing method of claim 15, wherein the response signal processing procedure comprises:

if receiving the response signal in the predetermined waiting period, then processing the transmitting data according to the responding information of the response signal; and

if not receiving the response signal in the predetermined waiting period, then directly transmitting the transmitting data without compressing.

18. The data processing method of claim 17, wherein, when the responding information of the response signal shows unnecessary to proceed the data compression, then the data receiving/transmitting apparatus doesn't compress the transmitting data, and transmits the transmitting data directly.

19. The data processing method of claim 17, wherein, if the responding information of the response signal shows necessary to proceed the data compression, the look up table creates a data record to record the device identification number of the target data receiving/transmitting apparatus, the information of data compression, and the information of the corresponding data compressing method into the look up table.

20. The data processing method of claim 17, wherein, if the responding information of the response signal shows unnecessary to proceed the data compression, the look up table creates a data record to record the device identification number of the target data receiving/transmitting apparatus, the information of not proceeding data compression into the look up table.

21. The data processing method of claim 17, wherein, if not receiving the response signal in the predetermined waiting period, the look up table creates a data record to record the device identification number of the target data receiving/transmitting apparatus, the information of not proceeding data compression into the look up table.
22. The data processing method of claim 12, wherein the data compressing method is to compress the transmitting data during performing the data packet packaging procedure.
23. The data processing method of claim 22, wherein the data compressing method is to proceed the loss-less compression with the transmitting data by the data compressing method of ZIP or LZH.